

**The Michigan Substance Abuse Risk
and Protective Factors
2000/2001 Student Survey:
Western Region Results**

*Michigan Department
of Community Health*



*John Engler, Governor
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THE MICHIGAN SUBSTANCE ABUSE RISK AND PROTECTIVE FACTORS 2000/2001 STUDENT SURVEY: WESTERN REGION RESULTS

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1. INTRODUCTION AND METHODOLOGY

In order to estimate the number and characteristics of middle and high school students in Michigan who are at elevated risk of alcohol, tobacco, and other drug use and related problems, or who are already substance users, the Michigan Department of Community Health (MDCH), Division of Mental Health Quality and Planning (DMHQP), with assistance from Research Triangle Institute (RTI), conducted the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey. This survey was funded by the Center for Substance Abuse Prevention (CSAP) as part of Michigan's Prevention Needs Assessment Project.

During the 2000 - 2001 school year, school staff administered the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey to over 9,000 students in grades 6, 8, 10, and 12, in 73 schools across Michigan.

To present the data and information from this study in a meaningful manner, we prepared an individual report for each of the seven regions in Michigan. Because of the small number of private school students participating in the survey, each regional report focuses on the findings from data collected from public school students. This report presents the results of the public school survey in the Western region and is divided into four chapters. The remaining sections of this chapter provide information on study methodology and response rates. The second chapter provides prevalence estimates of Western region public school students' use of tobacco, alcohol, and other drugs, as well as estimates of delinquent behavior. It should be noted that where estimates are compared in this report, no formal statistical analyses have been conducted. Chapter 3 provides findings about community, school, family, and peer-individual risk factors associated with students' substance use, and Chapter 4 summarizes the key study findings. In addition, the instrument and data collection materials are provided in the appendix.

1.1 Methodology

The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey was adapted from the Student Survey of Risk and Protective Factors and Prevalence of Alcohol, Tobacco, and other Drug Use, developed by the Social Development Research Group (SDRG) at the University of Washington and used in many other states. The survey was printed on an electronically scannable form. To protect student privacy, the questionnaire was anonymous. It is therefore impossible to identify an individual student's responses. District and school recruitment was conducted by staff of MDCH. Participation by schools and students was completely voluntary. Parental consent was obtained prior to survey administration by using either active or passive consent procedures. Participating schools were provided all the necessary materials for administering the survey. A designated survey coordinator at each school distributed and collected survey materials and sent the completed surveys back to RTI via

Federal Express. A thank you letter was sent by MDCH to participating school superintendents, principals, and teachers expressing appreciation to all involved in the survey. The letter provided instructions on how to receive the incentive for participating.

Because this research effort involved data collection directly from minors, it involved review of the study design and all school and parental consent forms and procedures by the MDCH Human Subjects Committee. Approval was granted as required before data collection began.

1.2 Response Rates

The following information is for the **Western region** and is based on the surveys completed by participating students in grades 6, 8, 10, and 12. **Exhibit 1.1** displays the planning regions in the state. **Exhibit 1.2** shows that 16 schools were sampled from the Western region with 12 schools eligible to participate. Schools were eligible if they included a 6th, 8th, 10th, and/or 12th grade. Of the 12 eligible schools, 8 participated in the survey for an overall school response rate of 67 percent. The school response rate in the Western region was slightly lower than the statewide public school response rate of 69 percent. Within the 8 participating Western region public schools, 6 6th grade, 18 8th grade, 21 10th grade, and 13 12th grade classes completed the survey.

A total of 1,457 Western region public school students were sampled, but 138 of these students were ineligible to participate because they were not in the 6th, 8th, 10th, or 12th grade (**Exhibit 1.2**). In addition, 17 eligible students did not participate because their parents/guardians objected to their participation, 21 eligible students refused to participate, and 104 were absent on the day of survey administration. Of the completed surveys, 35 were unusable due to careless, invalid, or logically inconsistent responses. As a result, there were 1,142 valid surveys, including 90 6th grade surveys, 355 8th grade surveys, 452 10th grade surveys, and 245 12th grade surveys. The overall student response rate for the Western region was 87 percent. The student response rate in the Western region was higher than the statewide public school student response rate of 78 percent.

Taking into consideration both the school and student response rates [school response rate*student response rate/100], **Exhibit 1.2** shows the overall response rate for the Western region was 58 percent. The overall response rate for public schools in the Western region was slightly higher than the overall statewide public school response rate of 54 percent.

1.3 Using the Survey Results

Results from the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey provide important information that can be used to help detect current patterns of risk factors among students. It can help you:

- ! identify differences by grade and gender,

Exhibit 1.1 Michigan Department of Community Health Substance Abuse Planning Regions by County

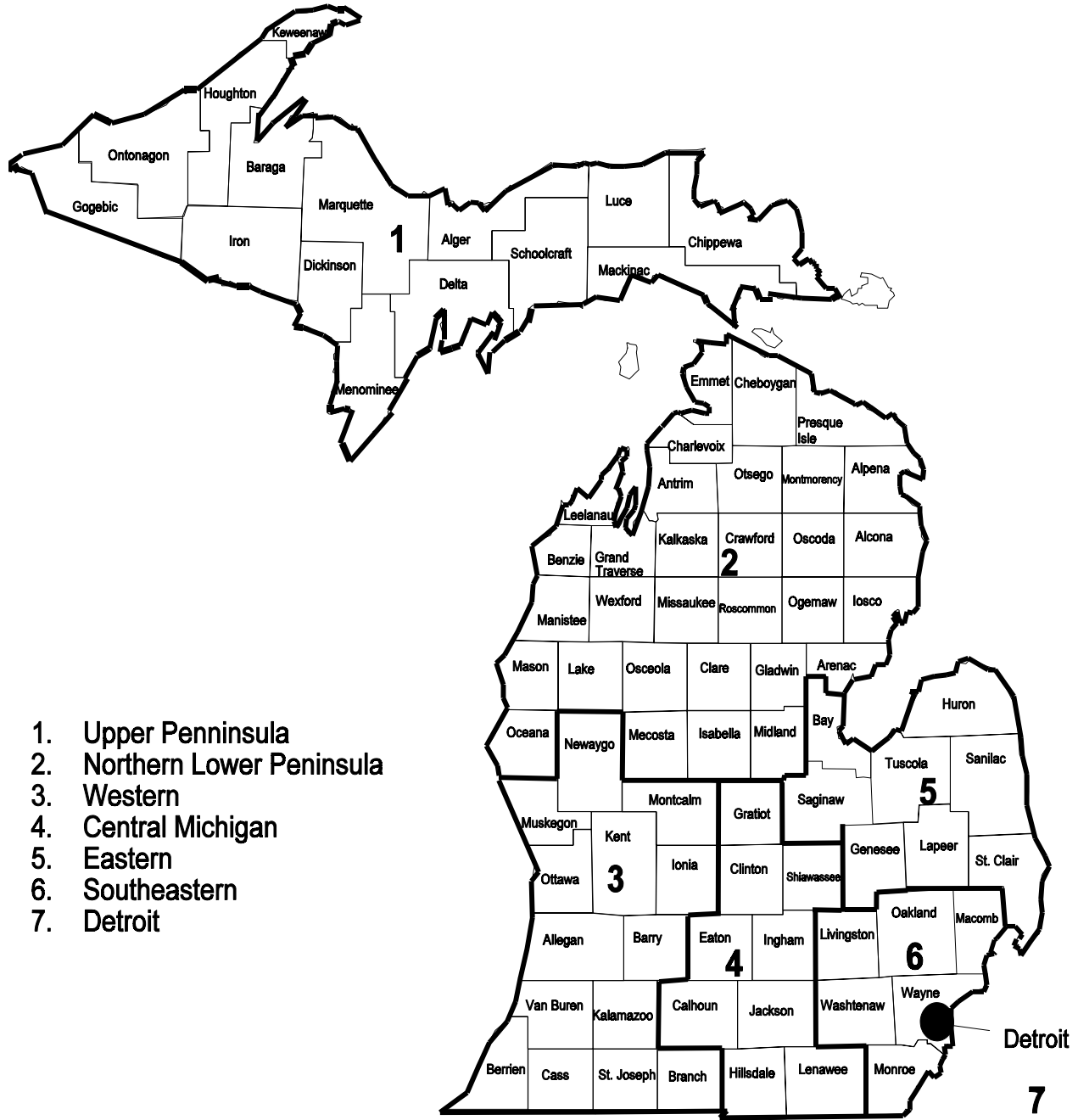


Exhibit 1.2 School and Student Response Rates for Public Schools in the Western Region

	Western Region	Statewide
School:		
# Schools Sampled	16	95
# Schools Eligible	12	84
# Schools Participating	8	58
Response Rate¹	67%	69%
Classes:		
# 6 th Grades Participating	6	78
# 8 th Grades Participating	18	128
# 10 th Grades Participating	21	104
# 12 th Grades Participating	13	77
Student:		
# Students Sampled	1,457	11,822
# Students Eligible ²	1,319	11,442
# Parental Refusals	17	284
# Student Refusals	21	302
# Absent	104	1558
# Discarded Surveys ³	35	386
# Valid Surveys	1,142	8,912
# 6 th Grade Surveys	90	1,729
# 8 th Grade Surveys	355	2,578
# 10 th Grade Surveys	452	2,548
# 12 th Grade Surveys	245	2,057
Response Rate⁴	87%	78%
Overall:		
Response Rate⁵	58%	54%

¹ School response rate is calculated by dividing the number of participating schools by the number of eligible schools.

² Students in grades 7, 9, and 11 who completed the survey were ineligible for the survey and are therefore excluded from analysis and response rate calculations.

³ Includes surveys in which responses were deemed dishonest or unreliable.

⁴ Student response rate is calculated by dividing the number of valid surveys by the number of eligible students.

⁵ The overall response rate is calculated by multiplying the school and student response rates.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

- ! target prevention efforts to specific groups of students, and
- ! suggest whether or not policies and programs are having their intended effect on student behaviors.

The results can be used as a tool for starting discussions, educating the community, and planning and evaluating programs.

- ! **Starting the Conversation:** Use the survey findings to begin a conversation with young people about the personal choices they make or about the health of their community. Ask them if the results accurately reflect what they see happening around them. How do they explain the results? What ideas do they have about ways to promote healthy behaviors? From their perspective, what seems to be working and what is not working?
- ! **Increasing Awareness:** The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey provides an opportunity to break through “denial” about some students’ participation in risky behaviors, and to make community members aware of the risks that their young people face. It can also dispel myths and correct misinformation about the average teen. The survey can be used to accentuate the positive and to celebrate the fact that many students are abstaining from behaviors which endanger their health and their ability to succeed.
- ! **Planning and Evaluating Programs:** The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey can serve as the basis of a regional needs assessment. It can help identify both strengths and areas for improvement in your region. It can even suggest strategies to address those challenges.

1.4 Limitations of the Survey

While the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey represents the most complete and most recent information available about risk behaviors among students in your region, like all surveys it has some limitations that you should keep in mind when interpreting the results.

- ! **Sampling and Data Quality:** This report is based on all the students who completed the survey in the Western region. Some students were absent on the day the survey was administered, and other students declined to participate or incorrectly completed the survey. It is likely that the results are representative of the student population in your region, but we cannot be sure. To minimize the chances of poor data quality, several precautions were taken to ensure the reliability and validity of the results. First, the questionnaire has been carefully designed and thoroughly tested by SDRG. Second, the survey was anonymous to

encourage students to be honest and forthright. Third, several consistency checks were run on the data to exclude careless, invalid, or logically inconsistent answers. These precautions can reduce most, but not all, sources of error.

- ! ***What, not Why:*** The Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey can indicate what students are doing. It also can suggest the groups of students who are more likely to engage in these behaviors, which can aid in designing prevention programs targeted at the students most at risk. However, the survey does not address another important piece of the puzzle: *Why* are students engaging in these behaviors? That question is beyond the scope of this report.

1.5 Understanding this Report

The results of the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey are presented as data Exhibits. All results are expressed as percentages of students who made the responses being reported. Some percentages may not sum to 100 percent due to rounding.

Please note that we encourage you to examine not only the areas for improvement identified in this survey, but also the regional strengths that are revealed. That is, in most cases the majority of adolescents are NOT engaging in risky behaviors. Although most of the Exhibits are oriented to examining the prevalence of risk behaviors, please do not forget about the percent of adolescents in the Western region who are NOT engaging in the behavior.

2. PREVALENCE OF SUBSTANCE USE AND DELINQUENT BEHAVIOR AMONG MICHIGAN PUBLIC SCHOOL STUDENTS IN THE WESTERN REGION

This chapter presents information about the use of tobacco, alcohol, and other drugs (ATOD) and participation in delinquent behavior among 6th, 8th, 10th, and 12th grade public school students in the Western region of Michigan. To determine the characteristics of students who engage in these behaviors, this chapter presents prevalence estimates separately by students' gender, race/ethnicity, and grade in school whenever the data permit. The available demographic information may be useful in helping to identify groups for targeted prevention efforts. It should be noted that for some demographic subgroups either the number of students in the Western region was too small or the prevalence of some behaviors was too low to obtain a reliable estimate. In addition to presenting information about the Western region, where possible results from the region are compared to the state average to indicate areas that may be of special concern. As noted in Chapter 1, comparisons in this report refer to apparent differences only, and no statistical calculations have been performed.

2.1 Tobacco

2.1.1 Lifetime Tobacco Use

As shown in **Exhibit 2.1**, about 48 percent of Michigan public school students in the Western region had ever used tobacco (i.e., either cigarettes or smokeless tobacco). Some differences in lifetime tobacco use based demographic characteristics were observed. Specifically, use was higher among males than females (52% vs. 46%). Use was highest among Caucasian students (56%), intermediate among non-Caucasian, non-African-American students (40%), and lowest among African-American students (34%). Although there was not a great difference between 8th graders (53%) and 10th graders (52%), use was higher among students in 12th grade (66%).

The overall level of lifetime tobacco use in the Western region was higher than the statewide average of 41 percent. Unlike students in the Western region, however, in the state as a whole females and males reported an approximately equal prevalence of lifetime tobacco use. When differences based on grade in school were examined, we found that tobacco use was more common among Western region 8th graders (53%) than in 8th graders across the state (38%). Western region versus state differences among 10th and 12th graders were relatively small.

Exhibit 2.1 Prevalence of Tobacco Use in the Lifetime and Past Month Among Public School Students in the Western Region and the State, by Selected Demographic Characteristics: 2000/2001

Demographic Characteristic	Lifetime		Past Month	
	Region	State	Region	State
Total	48.0	41.4	21.4	19.2
Gender				
Male	45.7	41.2	20.7	19.7
Female	52.0	41.9	22.2	18.9
Race/Ethnicity				
Caucasian	56.1	43.4	27.6	21.4
African-American	33.9	35.5	+	9.8
Other races ¹	40.1	34.2	18.7	15.5
Grade in School				
6 th	+	12.6	+	2.3
8 th	52.6	38.0	19.0	14.0
10 th	52.1	54.6	27.9	27.6
12 th	66.4	65.1	37.7	36.5

+ Estimate suppressed because of low precision.

¹ Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

2.1.2 Past-Month Tobacco Use

Approximately 21 percent of students in the Western region had used tobacco in the 30 days prior to the survey (i.e., they were current tobacco users) (**Exhibit 2.1**). The difference between males and females was small. As with lifetime tobacco use, current use was higher among Caucasian students (28%), than among non-Caucasian, non-African-American students (19%). The estimate for past month tobacco use for African-American students was unreliable. As anticipated, there were more current tobacco users in the 12th grade (38%) than in the 10th grade (28%) or 8th grade (19%).

The prevalence of past month tobacco use in the Western region was slightly higher than the statewide average of 19 percent. Demographic differences between the Western region and the state were especially notable for Caucasian students (28% Western region vs. 21% state) and 8th graders (19% Western region vs. 14% state).

2.2 Alcohol

2.2.1 Lifetime Alcohol Use

To assess lifetime alcohol use, students were asked whether they had ever had a drink of alcohol in their life, beyond just a few sips. **Exhibit 2.2** shows that 56 percent of the students in the Western region reported lifetime use of alcohol. An examination of demographic differences in the Western region showed that males were somewhat more likely than females (58% vs. 55%) ever to have used alcohol. We found notable differences based on race/ethnicity, with 64 percent of Caucasian students, 41 percent of African-American students, and 52 percent of students of Other races/ethnicities reporting lifetime alcohol use. In addition, more students in higher grades had used alcohol compared to students in lower grades. Use was highest among seniors (79%), intermediate among sophomores (64%), and lowest among 8th graders (58%).

The prevalence of lifetime alcohol use by students in the Western region was very slightly higher than in the state as a whole (56% and 54%, respectively). Although there was no difference for males, Western region females (58%) reported somewhat higher use than females across the state (54%). Differences were found for each of the racial/ethnic categories. Use was higher in the Western region than the state among Caucasian students (64% Western region, 57% state), and non-Caucasian, non-African-American students (52% Western region, 46% state), but the opposite pattern was found for African-American students (41% Western region, 46% state). Western region 8th graders (58%) were more likely to have used alcohol than those across the state (51%). Among 10th graders, however, the Western region prevalence (64%) was lower than the state average (72%). The difference for 12th graders was fairly small (79% Western region vs. 81% state).

Exhibit 2.2 Prevalence of Alcohol Use in the Lifetime and Past Month Among Public School Students in the Western Region and the State, by Selected Demographic Characteristics: 2000/2001

Demographic Characteristic	Lifetime		Past Month	
	Region	State	Region	State
Total	56.2	54.4	30.4	31.0
Gender				
Male	55.1	54.6	25.9	31.3
Female	58.3	54.4	35.4	30.7
Race/Ethnicity				
Caucasian	64.3	57.4	37.7	33.9
African-American	41.1	45.8	15.7	20.6
Other races ¹	51.5	46.3	27.2	24.5
Grade in School				
6 th	+	19.3	+	5.7
8 th	57.7	50.6	28.5	25.0
10 th	63.7	71.5	39.0	43.6
12 th	78.7	80.9	49.2	54.1

+ Estimate suppressed because of low precision.

¹ Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

2.2.2 Past-Month Alcohol Use

As shown in **Exhibit 2.2**, 30 percent of public school students in the Western region had consumed at least one drink in the month prior to the 2000/2001 survey (i.e., currently used alcohol). Females were more likely than males to have used alcohol in the past month (35% compared to 26%). Current alcohol use was most common among Caucasian students (38%), intermediate among non-Caucasian, non-African-American students (27%), and least common among African-American students (16%). As was the case with lifetime alcohol use, rates for current use increased with students' grade, from 29 percent of 8th graders, to 39 percent of 10th graders, to 49 percent of 12th graders.

When compared to the state as a whole, the overall prevalence of past month alcohol use by students in the Western region was very similar (30% and 31%, respectively). Compared to state averages, use was less common among Western region males and more common among Western region females. Use among Caucasian and non-Caucasian, non-African-American students in the Western region exceeded the state average, but use among Western region African-Americans was lower than the state average. Although Western region's 8th graders were more likely to have used alcohol than those across the state (29% vs. 25%), the opposite was true for sophomores (39% Western region, 44% state) and seniors (49% Western region, 54% state).

2.3 Other Drugs

2.3.1 Lifetime Other Drug Use

Illicit drug use was less prevalent than alcohol or tobacco use among Western region's public school students. Approximately 36 percent of students in the Western region reported having used at least one illicit drug in their lifetime (**Exhibit 2.3**). There was no difference based on gender. Use was highest among Caucasian students (38%), intermediate among non-Caucasian, non-African-American students (36%), and lowest among African-American students (31%). Although fairly similar percentages of 8th graders (40%) and 10th graders (37%) had used illicit drugs, use was higher among 12th graders (50%).

In the state as a whole one-third of students reported use of illicit drugs in their lifetime. Comparing demographic subgroups in the Western region and the state revealed that Western region females (36%) were more likely to use illicit drugs than those across the state (32%). Other notable differences from state averages were higher use among Western region Caucasian students (38% compared to 34%), non-Caucasian, non-African-American students (36% compared to 30%), and 8th graders (40% compared to 30%). In contrast, Western region 10th

Exhibit 2.3 Prevalence of Illicit Drug Use in the Lifetime and Past Month Among Public School Students in the Western Region and the State, by Selected Demographic Characteristics: 2000/2001

Demographic Characteristic	Lifetime		Past Month	
	Region	State	Region	State
Total	35.8	33.3	17.4	17.2
Gender				
Male	35.7	35.2	17.6	18.6
Female	36.0	31.7	17.1	16.0
Race/Ethnicity				
Caucasian	37.9	34.1	18.5	17.8
African-American	31.4	32.2	15.7	15.4
Other races ¹	35.8	29.5	17.1	15.9
Grade in School				
6 th	+	10.8	+	3.2
8 th	39.6	30.2	19.4	15.5
10 th	37.1	42.7	20.4	24.7
12 th	50.4	51.7	24.7	26.1

+ Estimate suppressed because of low precision.

¹Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Note: Illicit Drug Use includes use of marijuana, inhalants, cocaine, LSD or other psychedelics, speed or amphetamines, or other illegal drugs.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

graders were less likely to have used illicit drugs than those across the state (37% compared to 43%).

We also examined what types of illicit drugs were being used by Michigan's public school students (**Exhibit 2.4**). The most frequently used illicit drug in the Western region was marijuana (25%), followed by inhalants (15%), tranquilizers (5%), LSD or other psychedelics (4%), designer drugs (4%), and speed or amphetamines (3%). These findings are similar to those reported across the state.

Exhibit 2.4 Prevalence of Specific Types of Illicit Drug Use in the Lifetime and Past Month Among Public School Students in the Western Region and the State: 2000/2001

Substance Used	Lifetime		Past Month	
	Region	State	Region	State
Marijuana	24.5	24.0	12.6	12.6
Inhalants	15.2	13.6	4.3	3.9
Cocaine	+	3.3	+	1.1
LSD or Other Psychedelics	4.1	5.0	+	2.4
Speed or Amphetamines	3.4	4.9	+	1.7
Heroin	+	0.9	+	+
Tranquilizers	4.9	4.7	+	2.0
Barbiturates	+	2.7	+	1.2
Designer drugs¹	4.4	5.0	+	1.8
Steroids	+	1.4	+	+

+ Estimate suppressed because of low precision.

¹Includes GHB, ecstasy (X), or Ketamine (Special K).

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey

2.3.2 Past-Month Other Drug Use

Approximately 17 percent of students in the Western region reported using an illicit drug in the 30 days prior to the survey (**Exhibit 2.3**). Use was similar for males and females, and differences based on race/ethnicity were not large. Use was highest among seniors (25%), and similar among sophomores (20%) and 8th graders (19%).

The overall prevalence of past month illicit drug use by students in the Western region was similar to that of students in the state. Differences between demographic subgroups in Western region and the state were not large. The greatest difference was higher use among Western region's 8th graders (19%) than among 8th graders across the state (16%).

Marijuana and inhalants were the only substances for which reliable regional estimates of past month use were obtained. Approximately 13 percent of students in the Western region reported past month marijuana use, a figure consistent with the state average. About 4 percent of Western region students had used inhalants in the past month, the same percentage as students statewide.

2.4 Combinations of Substances Used

In addition to investigating individual substances used, we examined the prevalence of multiple substance use. **Exhibit 2.5** shows combination drug use for lifetime and past month. Please note that when referring to the “lifetime” columns the rows refer to lifetime use, and when referring to the “past month” columns the rows refer to past month use.

2.4.1 Lifetime Combination Drug Use

We found that, among substance users, the use of more than one substance was common. Most of the students who had smoked cigarettes in their lifetime also had used alcohol (84%), whereas 50 percent had smoked marijuana and 37 percent had used other illicit drugs. Among those who had used alcohol, 71 percent also had smoked cigarettes, 43 percent had smoked marijuana, and 33 percent had used other illicit drugs. Students who had ever smoked marijuana were likely to have used cigarettes (96%) alcohol (97%), or other illicit drugs (48%). Finally, among students who had ever used illicit drugs other than marijuana, 80 percent had smoked cigarettes, 87 percent had used alcohol, and 55 percent had smoked marijuana.

2.4.2 Past Month Combination Drug Use

As was the case with lifetime use, if students had used one substance in the past month they were fairly likely to have used another one too. Students who had smoked cigarettes in the past month had relatively high levels of past month alcohol (81%), marijuana (46%), and other illicit drug (29%) use. Among those who had used alcohol, 55 percent had smoked cigarettes, 35 percent had smoked marijuana, and 23 percent had used other illicit drugs. Students who had smoked marijuana in the past month were likely also to have used cigarettes (77%), alcohol (85%), and other illicit drugs (42%). Among past month other illicit drug users, past month cigarette use was 65 percent, alcohol use was 78 percent, and marijuana use was 58 percent.

Exhibit 2.5 Combinations of Substances Used in the Lifetime and Past Month Among Michigan Public School Students in the Western Region: 2000/2001

	Lifetime Use				Past Month Use			
	Cigarettes	Alcohol	Marijuana	Other Illicit Drugs	Cigarettes	Alcohol	Marijuana	Other Illicit Drugs ¹
Cigarettes	100.0	84.3	50.0	37.2	100.0	80.6	46.1	28.6
Alcohol	70.9	100.0	42.5	33.4	55.0	100.0	35.0	23.0
Marijuana	95.5	96.8	100.0	47.8	76.6	85.3	100.0	42.1
Other Illicit Drugs¹	80.3	86.9	55.1	100.0	65.4	78.2	58.1	100.0

¹Includes inhalants, cocaine, LSD or other psychedelics, speed or amphetamines, heroin, tranquilizers, barbiturates, design drugs (GHB, ecstasy [X], or Ketamine [Special K]), and steroids.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

2.5 Peer Perceptions of Use and Perceived Risk of Use

2.5.1 Peer Perceptions

To determine the effect of peers' opinions on students' substance use, respondents were asked about the chances that they would be seen as "cool" if they used cigarettes, alcohol, or marijuana. **Exhibit 2.6** illustrates that the majority of students in the Western region reported that there was "some, little, or no chance" that using these substances would influence their peers' perceptions of them. There was a notable difference in substance use between students who thought using substances would make them appear "cooler" and those who did not. Specifically, those who thought substance use would enhance their image were more likely to use alcohol, cigarettes, and marijuana. It is interesting to note that the association between peer opinions and substance use was not specific to a given substance. For example, students who reported that they would be seen as cool if they drank alcohol were more likely not only to drink alcohol, but also to smoke cigarettes and marijuana. This finding also applied to peer perceptions about alcohol and marijuana, and held true for both lifetime and past month substance use (where comparisons were possible).

2.5.2 Perceived Risk

Students were asked how much people risk harming themselves (physically or in other ways) if they smoke cigarettes, drink alcohol regularly, or smoke marijuana regularly. The findings are presented in **Exhibit 2.6**. For both lifetime and past month use, students who perceived great risk associated with using substances were less likely to have used them than students who thought there was either moderate or slight or no risk. Again, the association was not substance-specific; the patterns of perception of one substance applied to the use of all three.

2.6 Delinquent Behavior

Exhibit 2.7 shows the past year prevalence by gender, race/ethnicity, and grade of five delinquent behaviors: being drunk or high at school, being suspended from school, stealing or attempting to steal a motor vehicle, selling illegal drugs, and having been arrested.

Drunk or High at School. Overall, 12 percent of public school students in the Western region reported having been drunk or high at school in the year prior to the survey. There were no meaningful differences based on gender or race/ethnicity. Having been drunk or high at school was more common among seniors (18%) than among sophomores (15%) or 8th graders (12%).

Exhibit 2.6 Prevalence of Lifetime and Past Month Use of Cigarettes, Alcohol, and Marijuana Among Michigan Public School Students in the Western Region, by Peer Perception of Use and the Perceived Risk of Use: 2000/2001

	Lifetime Use				Past Month Use		
	N	Cigarettes	Alcohol	Marijuana	Cigarettes	Alcohol	Marijuana
What are the chances you would be seen as cool if you:							
Smoked cigarettes							
very or pretty good chance	121	70.5	77.5	42.5	48.0	49.4	24.5
some, little, or no chance	984	45.9	54.6	23.1	18.4	28.4	11.4
Drank alcohol regularly ¹							
very or pretty good chance	162	68.0	78.3	39.1	40.2	52.6	25.6
some, little, or no chance	949	45.6	54.1	23.1	18.7	27.7	10.9
Smoked marijuana							
very or pretty good chance	145	69.1	81.6	49.0	36.3	49.5	35.3
some, little, or no chance	962	45.5	53.9	21.9	19.4	28.4	9.8
How much do you think people risk harming themselves (physically or in other ways) if they:							
Smoke cigarettes							
great risk	746	42.5	54.6	21.3	16.1	26.5	10.4
moderate risk	234	66.5	67.1	32.9	34.2	42.5	14.2
slight or no risk	126	48.1	53.2	31.4	28.3	35.7	23.4
Drink alcohol regularly ²							
great risk	476	38.7	47.1	17.9	13.8	19.7	8.1
moderate risk	379	55.4	63.9	29.9	26.3	37.2	14.5
slight or no risk	253	53.6	65.7	31.2	28.1	41.9	19.0
Smoke marijuana regularly							
great risk	727	40.0	48.8	13.2	13.0	22.7	3.9
moderate risk	201	64.1	75.8	44.3	34.9	41.0	21.3
slight or no risk	170	64.5	71.0	56.0	43.3	55.2	44.3

¹At least once or twice a month.

²One or two drinks nearly every day.

**Exhibit 2.7 Prevalence of Delinquent Behavior in the Past Year Among Public School Students in the Western Region:
2000/2001**

	Gender		Race/Ethnicity			Grade				Total
	Male	Female	Caucasian	African American	Other Races ¹	6	8	10	12	
Drunk or high at school	11.4	11.3	12.5	12.3	+	+	11.8	15.3	18.0	11.6
Suspended from school	21.7	12.2	8.9	34.0	22.2	+	26.6	9.2	+	17.3
Stole or tried to steal a motor vehicle	+	+	+	+	+	+	+	+	+	+
Sold illegal drugs	9.1	4.6	6.7	+	+	+	+	9.3	12.7	7.2
Been arrested	6.1	+	4.4	+	+	+	9.2	+	+	5.4

+ Estimate suppressed because of low precision.

¹Includes Hispanics or Latinos, American Indians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, or Arab Americans or Chaldeans.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Suspended from School. Approximately 17 percent of students in the Western region reported having been suspended from school in the year prior to the survey. Males (22%) were considerably more likely to have been suspended than females (12%). Suspension was more common among African-American students (34%) than among non-Caucasian, non-African-American students (22%) or Caucasian students (9%). Finally, more 8th graders (27%) than 10th graders (9%) had been suspended in the past year.

Sold or Tried to Steal a Motor Vehicle. Very few students reported actual or attempted theft of a vehicle. As a result, no reliable prevalence estimates are available.

Sold Illegal Drugs. Overall, 7 percent of students in the Western region reported that they had sold illegal drugs in the year prior to the survey. This behavior was more common among males (9%) than females (5%), and more common among seniors (13%) than sophomores (9%).

Been Arrested. About 5 percent of Western region students reported having been arrested in the past year. Estimates for many of the demographic subgroups were suppressed because of low reported prevalence.

2.7 Summary

The most commonly used substances among public school students in the Western region were alcohol, cigarettes, and marijuana. The majority (56%) had used alcohol in their lifetime, and 30 percent had used it in the month before the survey. Recent tobacco use was reported by 21 percent of students and recent marijuana use by 13 percent.

In the Western region, the most consistent demographic differences were based on race/ethnicity and grade in school. Use was most common among Caucasian students, intermediate among non-Caucasian, non-African-American students, and lowest among African-American students. Seniors were more likely to have used substances than were students in lower grades.

When compared to students across the state, students in the Western region reported somewhat higher levels of tobacco use, and similar levels of alcohol and illicit drug use.

Among students who used substances, multiple substance use was fairly common. This was true for both lifetime and past month use.

Most students reported that using cigarettes, alcohol, or marijuana was unlikely to make them appear “cooler” to their peers. Those who did think substance use would enhance their image were more likely to use substances. It is notable that the association between peer opinions and substance use was not specific to a given substance; instead, students who reported that they would be seen as cool if they used one substance were more likely to report use of other substances too.

Moving beyond substance use, the prevalence of some delinquent behaviors in the past year was also assessed. Approximately 12 percent of students in the Western region reported having been drunk or high at school in the past year, 17 percent reported having been suspended from school, 7 percent reported having sold illegal drugs, and 5 percent had been arrested.

Overall, the data presented in this chapter provide basic prevalence information about alcohol and other drug use and delinquent behaviors for public school students in the Western region of Michigan and offer insights into the groups most likely to experience substance use problems. When considering the information in this chapter, the limitations should be kept in mind. As noted previously, information for some demographic subgroups is unavailable due to low precision in the data or low prevalence of the behavior among those groups. In addition, the results are based on students’ self-reports, and may not reflect their substance use with complete accuracy. Another important consideration involves the implications of any data collected in a school setting; students problematically involved with substance use may be less likely to attend school, and as a result considerable caution should be used when extrapolating the results to the entire adolescent population in the Western region of Michigan.

3. RISK AND PROTECTIVE FACTORS FOR ADOLESCENT HEALTH BEHAVIORS AMONG MICHIGAN PUBLIC SCHOOL STUDENTS IN THE WESTERN REGION

3.1 Background

The risk and protective factor framework has assumed a prominent role in substance abuse prevention research and practice over the past two decades. In 1979, Dr.'s J. David Hawkins and Richard F. Catalano, of the Social Development Research Group (SDRG), began developing the Social Development Strategy which has identified a set of risk and protective factors that influence behaviors.

Risk factors are characteristics of individuals or their environment that, when present, increase the likelihood that individuals will develop a disorder (e.g., use drugs) (Garmezy, 1983). Protective factors are characteristics that may reduce one's susceptibility to risk or prevent the initial occurrence of a risk factor (Coie et al., 1993). SDRG research has shown that certain conditions in a child's community, school, family and peer environments, as well as physiological and personality traits of the child, are common risk factors for problems such as drug abuse, delinquency, teenage pregnancy, and school failure. Because risk factors are precursors to substance abuse behaviors, reducing risk factors or protecting against them can prevent the occurrence of such behaviors. The Social Development Strategy emphasizes two key protective factors, including (1) bonding to prosocial family, school and peers, and (2) clear standards or norms for behavior. Three processes promote these protective factors: (1) opportunities for involvement in productive prosocial roles, (2) skills to be successfully involved in these roles, and (3) consistent systems of recognition and reinforcement for prosocial involvement. These factors protect against the development of conduct problems, school misbehavior, truancy, and drug abuse. Therefore, risk-focused approaches to substance abuse prevention seek to reduce risk factors for substance abuse and enhance protective factors.

The risk and protective factors identified above are found at multiple levels, including the individual, the family, the peer group, the school, and the community (Hawkins, Catalano, & Miller, 1992; Kandel, Simcha-Fagan, & Davies, 1986; Newcomb & Felix-Ortiz, 1992). Persons exposed to multiple risk factors, and across multiple levels, are more likely to engage in substance use than those with fewer risk factors and/or fewer levels. In addition, as mentioned above, many undesirable behavioral outcomes, such as substance use, delinquency, teen pregnancy, and school failure, share common risk factors. Some risk factors, such as demographic characteristics, cannot be changed, but can help to identify high-risk groups. Identification of specific populations in which risk factors are high and protective factors are low allows identification of prevention needs and facilitates targeting programming toward the

reduction of risk factors and the enhancement of protective factors (Hawkins, Arthur, & Catalano, 1997). Risk and protective factors which were asked about on the survey (see appendix) are as follows.

Community Factors:

- ! **Low neighborhood attachment** (Items 95, 97,107)
- ! **Community disorganization** (Items 99[a-d], 105)
- ! **Transitions and mobility** (Items 101, 104, 106, 108,100)
- ! **Laws and norms favorable toward drug use** (Items 86, 88, 90, 93[a-c], 94[a-d])
- ! **Perceived availability of drugs and handguns** (Items 84, 85, 87, 89, 91)
- ! **Opportunities for conventional involvement** (Items 103[a-e])
- ! **Opportunities for positive interaction** (Item 98)
- ! **Rewards for conventional involvement** (Items 96, 102, 109)

School Factors:

- ! **Academic failure** (Items 13, 23)
- ! **Little commitment to school** (Items 25, 26, 27, 28[a-c])
- ! **School absenteeism** (Items 14[a-c])
- ! **Opportunities for positive involvement** (Items 15, 16, 18, 19, 25)
- ! **Rewards for conventional involvement** (Items 17, 20, 21, 22)

Family Factors:

- ! **Poor family management** (Items 111, 112, 113, 115, 124, 125)
- ! **Poor Discipline** (Items 114, 116, 117)
- ! **Parental attitudes favorable toward drug use** (Items 110[a-c])
- ! **Parental attitudes favorable toward antisocial behavior** (Items 110[d-f])
- ! **Attachment** (Items 120, 121)

- ! **Opportunities for positive involvement** (Items 119, 122, 123)
- ! **Rewards for conventional involvement** (Items 118, 126)

Peer-Individual Factors:

- ! **Rebelliousness** (Items 32, 35, 47)
- ! **Early initiation of substance use** (Items 30[a-d])
- ! **Early initiation of problem behavior** (Items 30[e-i])
- ! **Impulsiveness** (Items 48, 49, 50, 51)
- ! **Antisocial behavior** (Items 40[a-h])
- ! **Attitudes favorable toward antisocial behavior** (Items 31[a-e])
- ! **Attitudes favorable toward drug use** (Items 31[f-i])
- ! **Perceived risks of drug use** (Items 52[a-d])
- ! **Interaction with antisocial peers** (Items 29[e-k])
- ! **Friends' use of drugs** (Items 29[a-d])
- ! **Sensation seeking** (Items 37[a-c])
- ! **Rewards for antisocial involvement** (Items 41[a-d])
- ! **Social skills** (Items 42, 43, 44, 45)
- ! **Belief in the moral order** (Items 33, 34, 36, 46)

3.2 Regional Findings

3.2.1 Attitudes Favorable Toward Drug Use

Nearly all public school students in the Western region reported that they thought it was very wrong or wrong for someone their age to use illegal drugs other than marijuana or to take a handgun to school (**Exhibit 3.1**). Most reported that it was very wrong or wrong for someone their age to attack someone (88%), steal anything worth more than \$5 (84%), smoke marijuana (83%), cut school (78%), smoke cigarettes (71%), drink alcohol regularly (70%), or

Exhibit 3.1 Students' Attitudes About Substance Use and Other Behaviors Among Public School Students in the Western Region: 2000/2001

	Percent			
	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
How wrong do you think it is for someone your age to:				
Smoke cigarettes?	47.5	23.6	15.8	13.1
Drink alcohol regularly?	50.7	19.2	19.7	10.4
Smoke marijuana?	68.0	14.7	10.0	7.3
Use other illegal drugs?	88.0	7.6	+	+
Steal anything worth more than \$5?	48.1	36.3	13.1	+
Pick a fight with someone?	29.2	36.4	27.5	6.9
Cut school?	44.3	33.9	17.2	4.7
Take a handgun to school?	91.2	6.6	+	+
Attack someone to seriously hurt them?	64.6	23.0	9.2	3.2

+ Data suppressed due to low precision.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey

pick a fight with someone (66%). Some students, however, reported that it was not wrong at all or only a little bit wrong for someone their age to engage in such activities.

Students also were asked how their parents felt about a subset of these behaviors. **Exhibit 3.2** shows that most students reported that their parents overwhelmingly thought each of these behaviors was wrong or very wrong. Nearly all students reported that their parents felt it was very wrong or wrong for them to steal anything worth more than \$5 or smoke marijuana, and most reported that their parents felt it was very wrong or wrong for them to smoke cigarettes (89%), drink alcohol (89%), or pick a fight with someone (87%).

3.2.2 Perceived Availability of Drugs

Students were asked how easy it would be for them to get alcohol, tobacco, and other drugs if they wanted to get some. **Exhibit 3.3** shows that a minority of public school students in the Western region thought getting illegal drugs other than marijuana would be very easy or sort of easy. Other, substances, however, were reportedly less difficult to obtain. About 62 percent of students thought it would be very easy or sort of easy for them to get cigarettes, 56 percent thought it would be very easy or sort of easy to get alcohol, and 50 percent thought it would be very easy or sort of easy to get marijuana.

Exhibit 3.2 Parental Attitudes Towards Substance Use and Other Behaviors Among School Students in the Western Region: 2000/2001

	Percent			
	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
How wrong do your parents feel it would be for you to:				
Smoke cigarettes?	74.0	15.4	7.1	3.6
Drink alcohol?	73.2	16.1	7.9	+
Smoke marijuana?	90.4	5.6	+	+
Steal anything worth more than \$5?	83.3	13.3	+	+
Pick a fight with someone?	60.3	26.7	9.7	3.4

+ Data suppressed due to low precision.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

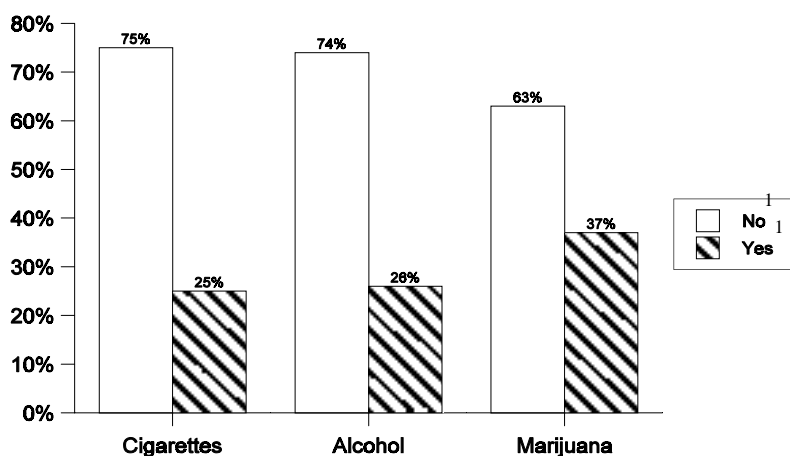
Exhibit 3.3 Perceived Ease of Getting Tobacco, Alcohol, and Illicit Drugs Among Public School Students in the Western Region: 2000/2001

	Percent			
	Very Hard	Sort of Hard	Sort of Easy	Very Easy
If you wanted to get _____, how easy would it be for you to get some?				
Beer, wine, or hard liquor	29.6	14.3	26.2	30.0
Cigarettes	28.0	9.6	16.2	46.2
Marijuana	41.4	8.9	16.1	33.6
Other illegal drugs	56.0	18.6	15.6	9.8

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Students also were asked about the likelihood of an adolescent in their neighborhood getting caught by the police for using various substances. About 75 percent of Western region students believed it was unlikely that an adolescent in their neighborhood would get caught if they smoked cigarettes. Students also thought it was unlikely that an adolescent would get caught for drinking alcohol (74%) or smoking marijuana (63%) (**Exhibit 3.4**).

Exhibit 3.4 Perceived Likelihood of Getting Caught by the Police for Substance Use Among Public School Students in the Western Region: 2000/2001



¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

3.2.3 Perceived Risks of Drug Use

Even though many students thought it was fairly easy to get substances and unlikely that they would get caught for using alcohol, tobacco, or other drugs, many felt that substance use was dangerous. **Exhibit 3.5** indicates that more than half felt that people are at great risk for harming themselves physically or in other ways if they smoke marijuana regularly or smoke one or more packs of cigarettes per day (68%). Only 43 percent thought drinking alcohol nearly every day was a great risk, and only 27 percent thought there was great risk associated with smoking marijuana once or twice.

3.2.4 Friends' Use of Drugs

Students were asked to think about their four best friends (the friends they felt closest to) and indicate how many had used alcohol, tobacco, or other drugs in the past year (**Exhibit 3.6**). A majority of students reported that none of their best or closest friends used

Exhibit 3.5 Perceived Risks of Substance Use Among Public School Students in the Western Region: 2000/2001

	Percent			
	No Risk	Slight Risk	Moderate Risk	Great Risk
How much do you think people risk harming themselves (physically or in other ways) if they:				
Smoke one or more packs of cigarettes per day?	5.5	6.3	20.4	67.8
Try marijuana once or twice?	18.4	27.9	27.1	26.6
Smoke marijuana regularly?	6.7	8.5	17.0	67.8
Take one or two drinks of an alcoholic beverage nearly every day?	9.3	14.7	33.1	43.0

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 3.6 Friends' Substance Use Among Public School Students in the Western Region: 2000/2001

	Percent				
	None	1	2	3	4
Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have:					
Smoked cigarettes?	50.2	14.2	12.2	7.2	16.2
Tried alcohol when parents didn't know about it?	42.8	14.2	11.5	8.8	22.8
Used marijuana?	63.2	11.3	7.3	7.2	11.0
Used LSD, cocaine, amphetamines, or other illegal drugs?	87.3	6.0	2.7	+	+

+ Data suppressed due to low precision.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

marijuana or other illegal drugs in the past year. Approximately 57 percent had 1 or more best or close friends who had tried alcohol when their parents didn't know about it, and 50 percent had best or close friends who had smoked cigarettes.

3.2.5 Opportunities and Rewards for Positive School, Community, and Family Involvement

Students were asked about opportunities and rewards for positive school, community, and family involvement. **Exhibit 3.7** shows that most students reported that there are a lot of chances for students to get involved in school sports, clubs, and other activities outside of class (88%), they have lots of chances to be part of class discussions/activities (83%), teachers ask them to work on school projects (79%), there are lots of chances for students to talk with a teacher one-on-one (76%), and teachers tell them when they are doing a good job (69%). Only 48 percent, however, reported that they have lots of chances to help decide things like class activities and rules, 45 percent reported that their teachers praise them when they work hard in school, and 34 percent reported that the school lets their parents know when they have done something well.

Exhibit 3.7 Opportunities and Rewards for School Involvement Among Public School Students in the Western Region: 2000/2001

	Percent	
	No ¹	Yes ¹
In my school, students have lots of chances to help decide things like class activities and rules.	52.0	48.0
Teachers ask me to work on classroom projects.	21.3	78.7
My teacher(s) notices when I am doing a good job and lets me know about it.	31.1	68.9
There are a lot of chances for students in my school to get involved in sports, clubs, and other schools activities outside of class.	12.3	87.7
There are lots of chances for students in my school to talk with a teacher one-on-one.	23.7	76.4
The school lets my parents know when I have done something well.	66.0	34.0
My teachers praise me when I work hard in school.	55.3	44.8
I have lots of chances to be part of class discussions/activities.	16.7	83.3

¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Students also were asked about the kinds of activities available in their community for people their age and about interaction between students and the community. **Exhibit 3.8** shows that

- ! students reported that the most common community activity is sports teams (84%), followed by boys and girls clubs (61%), scouting (54%), service clubs (53%), and 4-H clubs (35%);
- ! 53 percent of students said that there are people in their neighborhood who encourage them to do their best and who are proud of them when they do something well, and 39 percent said that there are a lot of adults in their neighborhood they could talk to about something important; and
- ! 27 percent of students said their neighbors notice when they do a good job and let them know about it.

Exhibit 3.8 Community Involvement and Interaction Among Public School Students in the Western Region: 2000/2001

	Percent	
	No	Yes
Which of the following activities for people your age are available in your community?		
Sports teams	16.3	83.7
Scouting	45.6	54.4
Boys and girls clubs	38.8	61.2
4-H clubs	65.4	34.6
Service clubs	46.6	53.4
In my neighborhood, or the area around where I live:¹		
There are a lot of adults I could talk to about something important.	60.6	39.4
There are people who are proud of me when I do something well.	47.5	52.5
There are people who encourage me to do my best.	47.1	52.9
My neighbors notice when I am doing a good job and let me know about it.¹	73.1	26.9

¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Finally, students were asked about rewards and opportunities for family involvement. Approximately 41 percent of students reported that their parents notice all the time when they are doing a good job and let them know about it, and another 29 percent reported that their parents do so often. Thirty-five percent of students also said that their parents tell them all the time that they are proud of them for something they have done, and another 33 percent said that their parents do so often (**Exhibit 3.9**). **Exhibit 3.10** shows that 78 percent of students said they could ask their parents for help with a personal problem, 75 percent of students reported that their parents give them lots of chances to do fun things with them, and 70 percent are involved in family decisions affecting them.

Exhibit 3.9 Rewards for Family Involvement Among Public School Students in the Western Region: 2000/2001

	Percent			
	Never or almost never	Sometimes	Often	All the time
My parents notice when I am doing a good job and let me know about it.	7.7	22.2	29.0	41.1
How often do your parents tell you that they are proud of you for something you have done?	8.6	23.5	32.5	35.4

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 3.10 Opportunities for Family Involvement Among Public School Students in the Western Region: 2000/2001

	Percent	
	No ¹	Yes ¹
My parents ask me what I think before most family decisions affecting me are made.	30.0	70.0
If I had a personal problem, I could ask my mom or dad for help.	22.1	77.9
My parents give me lots of chances to do fun things with them.	25.4	74.6

¹Students were asked to select one of the four response options: *NO!*, *no*, *yes*, and *YES!*. For this report, the response options of *NO!* and *no* were collapsed into No; *YES!* and *yes* were collapsed into Yes.

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

3.2.6 Regional and Statewide Rankings of Risk and Protective Factors

Exhibit 3.11 shows rankings of ten risk factors and nine protective factors for the Western region, as well as the percentage of students who are considered “at risk” or “resilient” for each. The most common risk factor for students in the Western region was perceived availability of drugs and handguns, on which 46 percent of students were at risk. Other relatively common risk factors for Western region students included little commitment to school (26%) and poor family discipline (25%). Approximately one in five was at risk on sensation seeking, academic failure, rebelliousness, friends’ substance use, low neighborhood attachment, laws and norms favorable toward substance use, and community transitions and mobility. An examination of protective factors shows that 83 percent of Western region students were resilient on opportunities for positive school involvement. About three quarters were resilient on family attachment, opportunities for positive family involvement, social skills, and belief in the moral order. Other protective factors on which at least half of Western region students were resilient were opportunities for conventional family involvement (65%), rewards for conventional community involvement (59%), opportunities for conventional community involvement (57%), and rewards for conventional school involvement (50%).

Statewide rankings and percentages are presented in **Exhibit 3.12**. Across the state, the most common risk factor was the perceived availability of drugs and handguns. More than four in ten students were at risk on this factor. Little commitment to school, poor family discipline, and sensation seeking were risk factors for about a quarter of students statewide. About one in five students were at risk on the factors academic failure, rebelliousness, friend’s substance use, laws and norms favorable toward substance use, and low neighborhood attachment. The tenth most common risk factor for students across the state was perceived risks of substance use (14%). In terms of protective factors, many students across the state were resilient on opportunities for positive involvement at school (83%), attachment to their family (79%), and opportunities for positive family involvement in their family (78%). About three quarters were resilient on social skills, belief in the moral order, and opportunities of conventional involvement in the community. Two-thirds were resilient on rewards for conventional family involvement, and more than half on rewards for conventional community and school involvement.

Exhibit 3.11 Rank of Risk and Protective Factors Among Michigan Public School Students: 2000/2001

Western Region					
Rank	Risk Factor	Percentage of Students at Risk	Rank	Protective Factor	Percentage of Students Resilient
1	Perceived availability of drugs and handguns	45.6%	1	Opportunities for positive involvement (school)	83.2%
2	Little commitment to school	25.8	2	Attachment (family)	76.5
3	Poor discipline (family)	24.6	3	Opportunities for positive involvement (family)	75.3
4	Sensation seeking	22.1	4	Social skills	72.8
5	Academic failure	21.7	5	Belief in the moral order	72.2
6	Rebelliousness	21.5	6	Opportunities for conventional involvement (family)	65.0
7	Friends' substance use	20.3	7	Rewards for conventional involvement (community)	59.1
8	Low neighborhood attachment	19.9	8	Opportunities for conventional involvement (community)	57.4
9	Laws and norms favorable toward substance use	17.9	9	Rewards for conventional involvement (school)	50.4
10	Community transitions and mobility	16.8			

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

Exhibit 3.12 Rank of Risk and Protective Factors Among Michigan Public School Students: 2000/2001

Statewide					
Rank	Risk Factor	Percentage of Students at Risk	Rank	Protective Factor	Percentage of Students Resilient
1	Perceived availability of drugs & handguns	42.5%	1	Opportunities for positive involvement (school)	82.5%
2	Little commitment to school	26.6	2	Attachment (family)	79.3
3	Poor discipline (family)	25.9	3	Opportunities for positive involvement (family)	77.7
4	Sensation seeking	22.9	4	Social skills	74.4
5	Academic failure	20.7	5	Belief in the moral order	73.0
6	Rebelliousness	19.3	6	Opportunities for conventional involvement (community)	72.1
7	Friends' substance use	18.7	7	Rewards for conventional involvement (family)	67.0
8	Laws and norms favorable toward substance use	17.6	8	Rewards for conventional involvement (community)	53.5
9	Low neighborhood attachment	16.7	9	Rewards for conventional involvement (school)	52.7
10	Perceived risks of substance use	13.7			

Source: Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey.

4. SUMMARY AND IMPLICATIONS

Findings from this study have implications for substance abuse prevention policies, planning, and program development in the Western region of Michigan. This study was designed to identify adolescent populations in greatest need of substance abuse prevention so that prevention programs and services can target risk and protective factors for substance abuse. Even though some of the risk factors examined in this study (e.g., grade in school, gender, and race/ethnicity) are impossible to alter, they do serve to identify those students with elevated risk for substance use. Other risk factors can be modified. Modifiable risk factors include academic performance, antisocial behaviors, student perceptions, and availability of alcohol, tobacco, and other drugs. The same is true for protective factors; some are amenable to change and others can serve as markers of groups most at risk. Highlights of the findings of this study and implications regarding programming are provided in the following sections.

4.1 Summary

4.1.1 Substance Use

When compared to students across the state, students in the Western region reported somewhat higher levels of tobacco use, and similar levels of alcohol and illicit drug use.

- ! Three in ten public school students in the Western region reported recent alcohol use.
- ! More than one in five students reported recent tobacco use.
- ! About 17 percent reported recent marijuana use.

Substance use varied across some demographic characteristics.

- ! In general, substance use in the Western region was highest among Caucasian students, intermediate among non-Caucasian, non-African-American students, and lowest among African-American students.
- ! Higher grade levels generally were associated with an increased prevalence of substance use. For example, the prevalence of past month tobacco use was 19 percent among 8th graders, 28 percent among 10th graders, and 38 percent among 12th graders.

4.1.2 Delinquent Behaviors

6. About 12 percent of students in the Western region reported having been drunk or high at school in the year prior to the survey. This behavior was more common among seniors than among sophomores or 8th graders.
7. Seventeen percent of students had been suspended from school. More males than females had been suspended. In addition, suspension was more common among African-American students than among non-Caucasian, non-African-American or Caucasian students. Finally, more 8th graders than 10th graders had been suspended in the past year.
8. Theft or attempted theft of a motor vehicle was rare.
9. Seven percent of students had sold illegal drugs. More males than females, and more seniors than sophomores, reported this behavior.
10. One in twenty students had been arrested in the year before the survey.

4.1.3 Risk and Protective Factors

One way to reduce students' substance use and delinquent behavior is to identify factors that make students more or less likely to participate in such behaviors and then reduce risk factors while increasing protective factors. National research has identified a set of risk and protective factors that have been shown to be related to these undesirable behaviors (Hawkins et al., 1992, 1997). The more risk factors a student has, the more likely that student is to have used substances in the past month. The more protective factors present, the less likely that student is to have used substances in the past month.

The following findings report on the status of risk and protective factors among students in the Western region.

- ! **Students' Attitudes Toward Drug Use and Antisocial Behavior.** The majority of students reported that it was "very wrong" or "wrong" for someone their age to engage in substance use and delinquent behavior. For example, over 90 percent thought it was very wrong or wrong for someone their age to use illegal drugs other than marijuana or take a handgun to school.
- ! **Parents' Attitudes Toward Drug Use and Antisocial Behavior.** Students overwhelmingly reported that their parents thought substance use and delinquent behavior were wrong or very wrong for adolescents.

- ! **Perceived Availability of Drugs.** Although students reported that illicit drugs other than marijuana would be difficult to obtain, at least half thought it would be very easy or sort of easy to get marijuana, alcohol, or cigarettes. Students also reported that it was unlikely that an adolescent in their neighborhood would get caught by the police if they smoked cigarettes or marijuana, or drank alcohol.
- ! **Perceived Risks of Drug Use.** Perceived risk of physical or other harm was fairly high for heavy smoking and regular marijuana use. Fewer students, however, thought using alcohol regularly or smoking marijuana once or twice put them at great risk.
- ! **Friends' Use of Drugs.** A majority of students reported that none of their closest friends had used marijuana or other illegal drugs in the past year. More than half, however, indicated that at least one close friend had smoked cigarettes or tried alcohol when their parents didn't know about it.
- ! **Opportunities and Rewards for Positive School Involvement.** Many students in the Western region reported that there are a lot of opportunities to be involved and rewarded at school. Fewer than half, however, said that they can help decide class activities and rules, that their teachers praise them when they work hard, or that the school notifies their parents when they have done something well.
- ! **Opportunities and Rewards for Positive Community Involvement.** Opportunities to participate in community activities such as sports, scouting, and service clubs were commonly reported by Western region students. More than half of students reported that their neighbors encourage them and are proud of them when they do something well, but it was less common to have neighborhood adults to confide in, or neighbors that notice and are proud when they do a good job.
- ! **Opportunities and Rewards for Positive Family Involvement.** A majority of students in the Western region reported that their parents always or often notice when they are doing a good job and let them know about it, and that their parents always or often tell them that they are proud of them for something they have done. Most students indicated that they could ask their parents for help with a personal problem, that their parents give them the opportunity to do fun things with them, and that they are involved in family decisions affecting them.

4.2 Limitations of the Data

It is important to note again the limitations of the data gathered in the Michigan Substance Abuse Risk and Protective Factors 2000/2001 Student Survey. The primary limitation

is the exclusive focus on adolescents in school. With such a focus, adolescent subpopulations with concentrated numbers of problem users may be missed. These subpopulations include school dropouts, homeless and runaway students, and students who have been incarcerated or institutionalized—all of whom are likely to be undercounted by school surveys.

The subpopulation of most concern not captured by school-based surveys is school dropouts. There has been some controversy surrounding the belief that dropouts have the greatest drug problems, but most of the research to date has shown that dropouts are more likely to be substance users than those who remain in school. Mensch and Kandel (1988) found that dropouts were more likely than graduates to use cigarettes and illicit drugs. An unpublished analysis of the adolescent subsample of the 1991 National Household Survey on Drug Abuse (NHSDA) also showed that 16- and 17-year-old dropouts were significantly more likely than those currently enrolled to use alcohol, cigarettes, marijuana, cocaine, and any illicit drugs (including marijuana and cocaine). Published studies have also shown that drug use often precedes dropping out of school (Friedman, Glickman, & Utada, 1985; Mensch & Kandel, 1988), but drug use has not been proven to be a definitive cause of dropping out of school. Nevertheless, it is reasonable to assume that some of the problem users who are *at risk* for dropping out but have not yet done so will be captured in this survey; results, however, can only be generalized to the population of adolescents who are attending school.

The second important limitation is that the questionnaire measures self-reported behavior. Caution should be exercised in interpreting these data because of respondents' tendencies to underreport undesirable behaviors and to have difficulty remembering complicated information, such as the age at which they first used a substance (Bailey, Flewelling, & Rachal, 1992).

Finally, reliable estimates for some demographic subgroups consistently were unavailable for the Western region because the groups were small relative to the entire student population or because the use or behavior in question was very low in these groups. Although data from these groups were used to calculate other estimates, such as regional totals and gender estimates, it is not possible to compare them with other demographic subgroups.

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APPENDIX A

Data Collection Materials